APPENDIX XIV
REFERENCES AND SUPPORTING MATERIALS FOR
LEVEL II CURRENT COGNITIVE STATUS EXAM ITEMS

ITEM 50.   IMMEDIATE VERBAL RECALL/LEARNING TASK

Example Script of Instructions For Immediate Recall/Learning

 "I'm going to say THREE words that I would like you to remember. Repeat them after me once I've finished saying the THIRD word. Please listen carefully and don't forget the words, because I will also ask you to repeat them again later on."

ITEM 52.   CONSTRUCTION (CLOCK DRAWING) TASK

The clock-drawing task is a simple and quick test used to screen for the presence of impaired cognitive functions such as praxis [1], executive functions[2] and visual-spatial organization. Asking the individual to draw clock hands pointing to Ten Minutes Past Eleven requires the use of all three of these cognitive abilities. See page 2 of this Appendix (Appendix XIV) for a standard, preprinted circle that may be copied for presentation to the individual. Please be sure to have a supply of these copies available whenever you conduct Level II evaluations.

Alternate Procedure For Persons Unable To Draw Clock Numerals and Hands

Step 1 – Clock Numerals: Tell the individual to pretend that the circle is the face of a clock. Ask them to say each number out loud in sequence and point to the position that number occupies on the clock face you provide to the individual. For each number that the individual speaks, draw it on the circle in exactly the same position the individual has pointed. Draw each number neatly, carefully and large enough so that the individual can see it. Indicate if Items 52a and 52b are correct or incorrect and record any errors made in the comments line for Item 52. Also briefly describe why you are using the "alternate procedure" and briefly describe why the individual is unable to draw.

Step 2 – Clock Hands: Ask the individual to point to the numbers you have drawn on the circle that correspond to Ten Minutes Past Eleven. Indicate if Item 52d is correct or incorrect; this item is correct if the individual points to the vicinity of the numbers, 11 and 2. Record any errors on the comments line for Item 52.
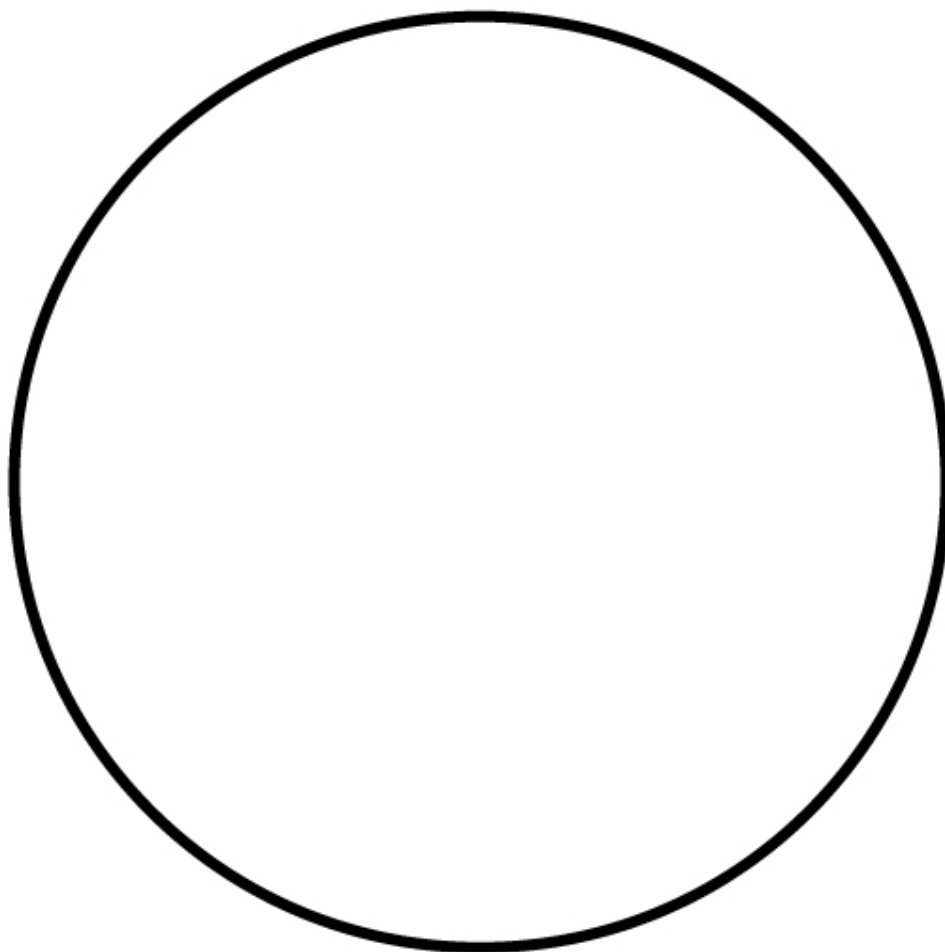
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1 Praxis: is the adaptation of movements to an intention, objective or verbal instruction (the word comes from the Greek, meaning movement). A disorder of this function, when there is no evidence or reason to believe that the individual is physically unable to perform the required movements, is called "dyspraxia" or "apraxia".

2 Executive Functions: include all brain mechanisms that are responsible for successful planning, organization and performance of complex tasks.

DMH ID Number: _____ -- _____   **Date: ___/___/_____**

Clock-Drawing – Correct and Incorrectly Drawn Examples

52a. Indicate if all numbers are present (1 through 12 with no missing numbers).

CORRECT
all numbers present though
some either cross or sit outside
of the circle's perimeter

CORRECT
all numbers present though
they are out of sequence &
in wrong 'north-south-east-
west' orientation

INCORRECT
'7' is missing

52b. Indicate if all numbers are in correct order, proper orientation (e.g., '6' is placed approximately 'due south'; '12' placed approximately 'due north') and drawn within the circle's perimeter.

CORRECT
all numbers present &
properly oriented

INCORRECT
out of order & drawn
in wrong orientation

INCORRECT
numbers cross or sit
outside of perimeter

52d. Indicate if the hands point to the correct time.

CORRECT
hands points to 11:10

CORRECT
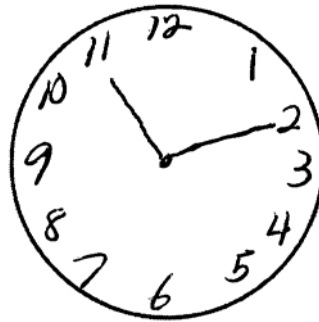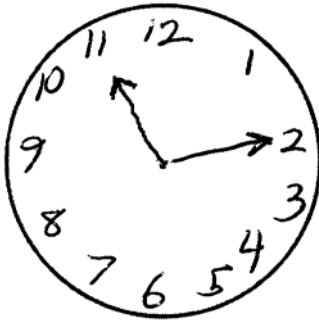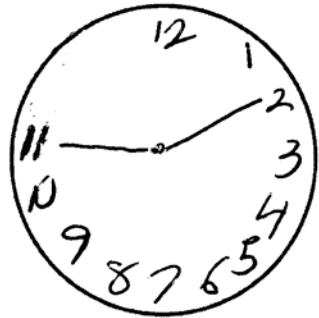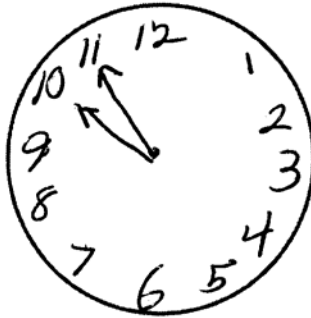hands point to 11:10 though
numbers are not correct

INCORRECT
hands point to 10:55
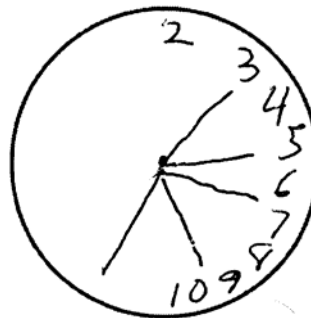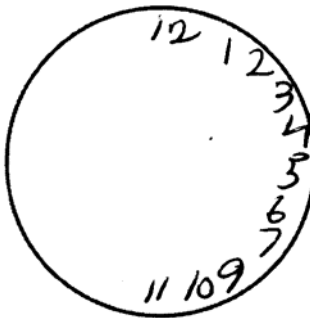(or 10:50) instead of 11:10

3

Clock-Drawing – Examples Indicative of Mild, Moderate & Severe Dementias
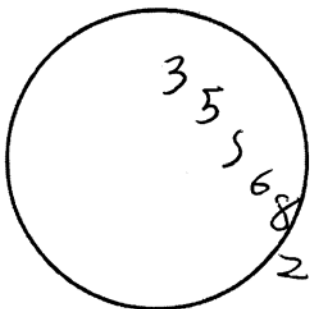
These responses are within normal limits.

These responses are consistent with a mild-severity dementia.

These responses are consistent with a moderate-severity dementia. Note: persons with traumatic brain injuries, particularly those involving the right parietal lobe, may exhibit similar responses.

These responses are consistent with a severe dementia.

APPENDIX XIV

ITEM 53. WORD GENERATION/ANIMAL NAMING TASK

Example Script of Instructions For Animal Naming

 "I'm going to give you one minute to say the names of as many different animals as you can. Basically, anything that is alive and moves counts as an animal. Do you have any questions?" Answer any questions the individual asks and then say, "Ready? … Begin."

Suggested Recording Procedure For Animal Naming

Write down the individual's response in the space provided on this page as he/she names each animal. You will also need to keep track of the number of perseverations (repetitions) made by placing a check mark beside a response each time the individual repeats the same name. By simply adding up the total number of check marks, you will obtain the number of perseveration errors.

Use a stopwatch or wristwatch with a second hand and note the time the individual begins to name animals as the start of the 60-second time period. It is wise to actually write down the start time (e.g. "0:23"). If the individual stops responding or becomes otherwise distracted, you should provide a prompt such as, "Keep going; remember to name as many different animals as you can". Count perseverations only if the individual does not self-correct. For example, if the individual already has said, "cat" and later on says, "cat, dog, horse, cow"…[pause]…"oops, I said 'cat' before, didn't I?" do not count the second cat response as a perseveration.

Word Generation/Animal Naming Scoring Sheet

1. _____	11. _____	21. _____
2. _____	12. _____	22. _____
3. _____	13. _____	23. _____
4. _____	14. _____	24. _____
5. _____	15. _____	25. _____
6. _____	16. _____	26. _____
7. _____	17. _____	27. _____
8. _____	18. _____	28. _____
9. _____	19. _____	29. _____
10. _____	20. _____	30. _____

APPENDIX XIV

SELECTED REFERENCES

Cognitive Decline in Verbal Fluency Significantly Greater Over Time in Older Women with Diabetes Compared with Non-Diabetics. Archives of Internal Medicine 2004;164:1327-1333.

Cognitive Substrates of Thought Disorder, I: The Semantic System. Am. J. Psychiatry, 1998, 155, 1671-1676.
[semantic word fluency is reduced in persons diagnosed with schizophrenia]

Letter and semantic fluency in older adults: effects of mild depressive symptoms and age-stratified normative data. Clinical Neuropsychologist, 2003, May; 17(2), 195-202.
[semantic word fluency is reduced in older adults]

Semantic Fluency in Mild and Moderate Alzheimer's Disease. Pekkala, S. Doctoral Dissertation, 2004, University of Helsinki (Finland).
[semantic word fluency is reduced in schizophrenia; perseveration error rates, rather than intrusion errors or a simple response count, best distinguish normal aging from a mild-moderate dementia]

The age of acquisition of words produced in a semantic fluency task is highly predictive of early Alzheimer's disease. Forbes-McKay, K. E., Ellis, A. W., Shanks, M. F., Venneri, A. . Neuropsychologia, 2005, 43, 1625-1632.

The neurologic examination: brief mental status. Chayer, Canadian Journal of Geriatric Care, 2002, May/June; 1(3), 265-267.
[for references & brief discussion of clock-drawing, including effects of early Alzheimer's & traumatic brain injuries to frontal & parietal lobes on clock-drawing]

The value of clock drawing in identifying executive cognitive dysfunction in people with a normal Mini-Mental State Examination score. Juby, A, Tench, S., Baker, V. Canadian Medical Association Journal, 2002, 167(8), 859-864.
[impaired clock drawing may precede the onset of an observable memory deficit in the progression of a dementia]